

**WHAT IS CLAIMED IS:**

- 1        1.        A computer-based method of formatting rules for monitoring application  
2        responsiveness, the method comprising:  
3                defining a collection of resources, each such resource being a source of application  
4        events; and  
5                defining a first transaction as a timeframe for measuring application responsiveness,  
6        the first transaction including a pattern of application events from resources in the collection  
7        of resources, the pattern defined as a block of constructs, wherein each construct in the block  
8        of constructs is selected from a group of construct syntaxes consisting of an event construct  
9        syntax, a choice construct syntax, a sequence construct syntax, and a last construct syntax,  
10       wherein:  
11               the event construct syntax specifies a category of application events for the pattern to  
12       accept;  
13               the choice construct syntax specifies an option set of constructs from the group of  
14       construct syntaxes, any one of which is acceptable to the pattern;  
15               the sequence construct syntax specifies a sequence of constructs from the group of  
16       construct syntaxes, for the pattern to accept sequentially; and  
17               the last construct syntax specifies a final set of constructs from the group of construct  
18       syntaxes, such that the final set of constructs must be satisfied for the pattern to be matched.
- 1        2.        The method of claim 1, wherein defining the first transaction includes associating the  
2        transaction with a module of one or more transactions.
- 1        3.        The method of claim 1, further comprising defining a second transaction based on the  
2        collection of resources.

3 4. A computer-based method of monitoring networked application responsiveness, the  
 4 method comprising:  
 5 detecting an application instance that has a stream of application events;  
 6 instantiating a finite state machine to recognize transactions in the stream of  
 7 application events for the application instance, the finite state machine including a collection  
 8 of states and a collection of transitions, each such transition having criteria for events that  
 9 qualify to transition between a source state for the transition and a destination state for the  
 10 transition, the source state and the destination state being among the collection of states;  
 11 associating a first token with an initial state in the collection of states;  
 12 processing the stream of application events sequentially, including, for each such  
 13 event, comparing the event to a processed transition in the collection of transitions and  
 14 associating an event token with the destination state of the processed transition if the event  
 15 satisfies the criteria of the processed transition; and  
 16 recognizing a transaction if a final state in the collection of states is associated with  
 17 the event token for a candidate event in the stream of application events.

1 5. A computer-based method of monitoring networked application responsiveness, the  
 2 method comprising:  
 3 receiving a message that specifies a responsiveness measure, a client, a server, and a  
 4 networked service;  
 5 selecting from a database a path corresponding to the client and the server, and a  
 6 client set corresponding to the client; and  
 7 adding the responsiveness measure to an aggregate sample of a plurality of clients,  
 8 the aggregate sample selected according to the set, the path, and the networked service.

1 6. The method of claim 5, further comprising:  
 2 formulating a predicted responsiveness profile based on the aggregate sample; and  
 3 if the responsiveness measure deviates from the predicted responsiveness profile by  
 4 an amount given by a predetermined formula, creating an alert condition for the deviation.

1 7. A computer-based method of identifying user interface objects in a windowing  
 2 environment, the method comprising:

3           constructing a collection of string descriptions of window properties, including  
4           generating a base string description for a base window having an ancestry hierarchy of parent  
5           windows, and recursively generating subsequent string descriptions of the parent windows by  
6           following the ancestry hierarchy;

7           calculating a hash of the collection of string descriptions;

8           identifying the base window with an object identifier that combines an application  
9           name for an application associated with the base window, a numeric length of the collection  
10          of string descriptions, and the hash.

1       8.       The method of claim 7, wherein the object identifier includes string separators  
2       separating the application name, the numeric length, and the hash.

1       9.       A computer-based method of monitoring networked application responsiveness, the  
2       method comprising:

3           receiving a message that specifies a responsiveness measure, a client, a server, and a  
4           networked service;

5           selecting from a database a path corresponding to the client and the server, and a  
6           client set corresponding to the client; and

7           adding the responsiveness measure to an aggregate sample of a plurality of clients,  
8           the aggregate sample selected according to the set, the path, and the networked service.

1       10.      The method of claim 9, further comprising:

2           formulating a predicted responsiveness profile based on the aggregate sample; and

3           if the responsiveness measure deviates from the predicted responsiveness profile by  
4           an amount given by a predetermined formula, creating an alert condition for the deviation.

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